



DOC23/39073-4

Department of Planning and Environment
Industry Assessments
Locked Bag 5022
PARRAMATTA NSW 2124

Attention: Bianca Thornton, Senior Environmental Assessment Officer
Email: bianca.thornton@planning.nsw.gov.au

Electronic Mail
15 February 2023

Dear Ms Thornton

EPA Response to MOD 2 - Integrated Water and Leachate Plant Modifications

Thank you for consulting with the Environment Protection Authority (EPA) regarding Modification Application for an integrated water and leachate plant modification (PAE-53640707) at Orchard Hills Waste Facility (Patons Lane Resource Recovery Centre) (Lot 40, DP 738126) located at 123-179 Patons Lane, Orchard Hills (the Premises).

The EPA notes the Premises currently holds two Environment Protection Licences No. 20814 (landfill) and No. 21259 (resource recovery centre) under the *Protection of the Environment Operations Act 1997*. If the modification application was to be approved Orchard Hills Waste Facility would be required to apply for a Licence Variation to include the approved GTA's on the Environment Protection Licence/s for the scheduled activities at the Premises.

The EPA understands the proposal involves:

- Recycling Water Treatment Plant (RWTP) infrastructure to support the resource recovery centre;
- Landfill Leachate Treatment Plant (LTP);
- additional new raw leachate dam and new contact water dam; and
- a future connection to sewer and potable water.

The proposed operating hours are:

Day	Time
Monday – Friday	7:00am – 6:00pm
Saturday	8:00am – 2:00pm
Sundays and Public Holidays	Closed

Phone 131 555
Phone +61 2 9995 5555
(from outside NSW)

TTY 133 677
ABN 43 692 285 758

Locked Bag 5022
Parramatta
NSW 2124 Australia

4 Parramatta Square
12 Darcy St, Parramatta
NSW 2150 Australia

info@epa.nsw.gov.au
www.epa.nsw.gov.au

The EPA has reviewed the information submitted for the proposed modification including:

1. Patons Lane Resource Recovery Centre – integrated water and leachate plant modifications – modification report SRC Operations Pty Ltd, Jackson Environment and Planning Pty Ltd (December 2022)
2. Patons Lane Resource Recovery Facility – integrated water and leachate plant modifications - air quality impact assessment, Jackson Environment and Planning Pty Ltd (December 2022)
3. Patons Lane Resource Recovery Facility – integrated water and leachate plant modifications – noise and vibration impact assessment, Jackson Environment and Planning Pty Ltd (December 2022)
4. Patons Lane Resource Recovery Facility – integrated water and leachate plant modifications – soil and water impact assessment, Rhelm Pty Ltd (December 2022)
5. Patons Lane Resource Recovery Facility Map

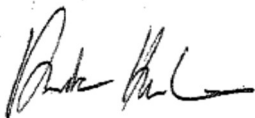
The EPA is unable to support and provide recommended conditions because further information is required, specifically on the following:

- a) proposed sewer connection to Sydney Water
- b) leachate overflow
- c) high Ammonia Levels identified in Dam 2
- d) stormwater discharge assessment.

Attachment A sets out further detail and explanation in relation to the points raised above and what information the EPA requires in order to support this proposal.

If you have any questions about this matter, please contact Jenny Gustafson on 9585 6471 or email jenny.gustafson@epa.nsw.gov.au.

Sincerely



Andrew Hawkins
Unit Head Regulatory Operations
Environment Protection Authority

ATTACHMENT A

The EPA has determined it is unable to support and provide recommended conditions for this proposal as it requires further information. The EPA's comments below outline the issues as well as identifying matters which the EPA would expect to be addressed if any further application is to be made.

Proposed connection to Sydney Water

It is stated that controlled discharges from the leachate plant will be trucked off site and that a sewerage connection to Sydney Water will be established.

What information does the EPA require?

- a) Provide information on when the proposed sewer connection to Sydney Water is to be finalised.
- b) Confirm and provide evidence that Sydney Water will receive the excess leachate/contact water effluent and that Sydney Water consider the proposed treatment systems/water quality is suitable for sewer discharge.

Management of leachate overflow

In the Modification supporting documentation 'Patons Lane Resource Recovery Centre –Integrated Water and Leachate Plant Modifications – Modification Report SRC Operations, (Jackson Environment and Planning Pty Ltd, December 2022) it refers to a *Leachate Water Balance Assessment*, GHD (2022) that includes details of the site leachate management system water balance. This document was not available to the EPA for review. Therefore, the overflow point(s) for the leachate system, overflow conditions and frequency are unclear.

What information does the EPA require?

- a) Further information is required on managed overflows that may occur from the leachate/contact water systems, including impacts of the proposed changes to the system, overflow discharge points and receiving environments, overflow frequency, design rainfall event that would cause overflow, and compliance with the EPA Landfill Guidelines related to provisions for managed overflows of leachate.

High Ammonia levels

From the Soil and Water Assessment it demonstrated that Dam 2 in the stormwater system had a maximum value of 10 mg/L of ammonia for the monitoring period 19 September 2019 and 6 October 2022. The source of this ammonia is unclear however it could be related to overflows from the leachate management system.

What information does the EPA require?

- a) Clarification that no overflows into the site stormwater management system will occur, in the context of high levels of ammonia detected in Dam 2 in recent monitoring.

Stormwater discharge assessment

The stormwater discharge assessment refers to targets related to urban stormwater and general urban development (e.g. new housing estates). The Model for Urban Stormwater Improvement Conceptualisation (MUSIC) assessment is based on percentage reductions in key urban stormwater pollutants which is not directly relevant to a landfill or resource recovery development that is a scheduled activity under the *Protection of the Environment Operations Act* (POEO Act).

The assessment of stormwater discharges for Licensed activities generally requires a water concentration-based assessment based on relevant *Protection of the Environment Operations Act* (POEO Act) requirements (section 45) and the NSW Water Quality Objective/ANZG (2018) guidelines.

Section 4.6 of the Soil and Water Impact Assessment states that: “*Storage calculations using Managing Urban Stormwater: Soils and Construction – Volume 1 (4th ed, Landcom 2004) procedures were undertaken for these dams as part of the Surface Water Assessment (GSS Environmental & BMT WBM, 2010).*” All of the stormwater dams are not discussed in this section, however, the above statement appears to relate to Dams 5 and 6. Landfills, however, should size basins based on *Managing Urban Stormwater: Volume 2b: Waste Landfills* (DECCW, 2008) consistent with the existing consent and as reflected in the licence condition related to 90th percentile storm depth (Volume 1, however, recommends 75th and 80th percentile storm depths which are not appropriate).

What information does the EPA require?

- a) the percentile design storm depth for all stormwater dams needs clarification
- b) the management period for restoring design storm depth in the dam should be provided including how reuse storage is to be managed in relation to restoring capacity in the dam to receive further rainfall events.
- c) clarification is provided on high levels of ammonia detected in Dam 2 in recent monitoring, in the context of suitability of stormwater controls.

This concludes the EPA's comments and recommendations.